

REMARKS

Claims 1-4 were previously cancelled. Thus, claims 5-9 remain pending.

The application has been removed from appeal and prosecution reopened by the Examiner in response to the Appellant's Brief. Claims 5-12 are newly rejected under 35 U.S.C. 112, second paragraph as not being sufficiently definite. Claims 5-9 stand rejected under 35 U.S.C. 102(b) as being anticipated by US patent application publication No. 2004/0162638 (hereinafter Solomon). Claims 10-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Solomon in view of US patent application publication No. 2002/0136260 (hereinafter Ma). Applicant respectfully requests reconsideration of the rejections and allowance of the present application in view of the following remarks.

Inappropriateness of finality of rejections upon reopening of prosecution:

MPEP 1207.04 makes it clear that a new ground of rejection may be made final upon the reopening of prosecution after appeal only if the new ground of rejection was necessitated by amendment or by information presented in an information disclosure statement. The Examiner justifies the finality of the Office Communication on page 10, paragraph 14 by stating that Applicant's amendment necessitated the new grounds. This is incorrect, since the Applicant offered no amendment concurrent with or after the Notice of Appeal. Accordingly, the finality of the Office Communication should be withdrawn, and the amendments presented herein entered as a matter of right.

Rejection under 35 USC 112, second paragraph:

Independent claim 5 is directed to a method for the operation of a technical system. See page 2, lines 1-3 of paragraph 10 of the disclosure of the present invention. Claim 5 recites recording a plurality of operating parameters 5 (FIG. 1) of a system during a time interval. Claim 5 further recites determining an operating mode or functional mode of the technical system from the temporal behavior of the operating parameters using artificial intelligence methods selected from the group consisting of: neuronal network, fuzzy logic, combined neuro/fuzzy method, and genetic algorithm. See page 2, lines 1-7 of paragraph 11 of the disclosure. The determining of the operating or functional mode of the technical system from the temporal behavior of the operating parameters is performed with no model of the technical system. See pages 3-4, lines 1-

6 of paragraph 13 of the disclosure. See also page 3, lines 1-4 of paragraph 18 of the disclosure. The technical system comprises a power station including at least a gas turbine, wherein the recorded operating parameters comprise operating parameters of at least said turbine, wherein the determining of the operating or functional mode of the technical system comprises determining the operating or functional mode of at least said gas turbine with no pre-existing model of the gas turbine. See paragraphs [0003] [0004] and [0021]

After an Appeal Brief was filed by Applicant and subsequent to at least three previous Office Communications and corresponding Responses filed by Applicant, the Examiner for the first time introduces a §112, second paragraph issue. Needles to say this is not an efficient use of scarce economic resources in a tough economic environment. The Examiner is kindly referred to M.P.E.P. 707.07(g) that reminds Examiners that piecemeal examination should be avoided.

The Examiner is also referred to M.P.E.P 2172 that states that a rejection based on the failure to point out and distinctly claim what applicant regards as applicant's invention is appropriate only where applicant has stated, somewhere other than in the application as filed, that the invention is something different from what is defined by the claims. In other words, the invention set forth in the claims must be presumed, in the absence of evidence to the contrary, to be that which applicants regard as their invention. (*Underlining added by Applicant*)

For the convenience of the Examiner, appropriate excerpts of Applicant's disclosure are reproduced below. The following two paragraphs [0008] and [0009] in the background section describe prior art problems:

*One solution approach from the prior art consists in using a model to simulate the technical system in order to find out which changes in operating parameters lead to which changes in other operating parameters so as to understand the interactions between the parts of a system or even within a part of a system.*

*This approach is very costly and susceptible to errors, however, since the modeling of a complex technical system is difficult and is possible only with limited accuracy.*

At least the following paragraphs [0013] [0016] and [0018] contrast the solution of the claimed invention versus the prior art solutions discussed above:

*The invention is based on the reflection that conclusions as to the current operating mode of the technical system can be drawn from a temporal behavior of operating parameters which are recorded and stored during a time interval, without detailed knowledge of the dependencies of the operating parameters on one another being necessary in advance. In particular, no model of the technical system has to be available in order to be able to make these statements.*

*If e.g. during the recording time interval certain operating parameters change (for example, in a linear manner) and certain other operating parameters then also exhibit a change (for example, in a quadratic manner), then this correlation is tracked and quantified using artificial intelligence methods without, for example, a model equation having to exist or to be determined in advance.*

*By means of the method according to the invention, the operating mode and/or functional mode of the technical system can consequently be determined in a simple manner, in particular without any modeling of the technical function of the system having to be known . . .*

Applicant believes that at this stage of the Examination, in lieu of simplifying the issues, the Examiner is unnecessarily getting bogged down with non-existing issues. For example, Applicant nowhere suggests that any specific artificial intelligence (AI) tools used by Applicant may not be based on well-known artificial intelligence mathematical constructs suitable to any such AI tool. The Examiner errs in mixing up the mathematical basis (e.g., model) of the AI tools and then appears to inappropriately attribute such basis to the physical technical system (e.g., a gas turbine in a power plant). Applicant's disclosure in plain English describes that a pre-existing model of the physical technical system (e.g., a gas turbine in a power plant) is not used. This claimed aspect is plainly self-consistent with the disclosure, and meets the

requirements of M.P.E.P 2172, which the Examiner is obliged to follow. Accordingly, this basis of rejection should be withdrawn.

Rejections under 35 USC 102 and 103:

Solomon is directed to self-organizing mobile robotic agents (MRAs) in a multi-robotic system (MRS). Solomon purports to describe a novel artificial intelligence technique where groups of MRAs are trained to become socially intelligent MRAs. See paragraph 0083 of Solomon. One skilled in the art will appreciate that Applicant's claimed invention has little to do with the AI techniques of Solomon that purportedly serve to train robots into socially intelligent robots. The MA reference is directed to a power control system for an AC electric furnace and has little to do, if anything, with a power station including at least a gas turbine, as set forth in the claimed invention. Accordingly, it is submitted that the Solomon does not anticipate amended claims 5-9, and Solomon/MA combination fails to render unpatentable amended claims 10-12 and the rejections should be withdrawn.

(Please proceed to the next page.)

Conclusion

It is respectfully submitted that each of the claims pending in this application recite patentable subject matter, and it is further submitted that such claims comply with all statutory requirements and thus each of such claims should be allowed.

The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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